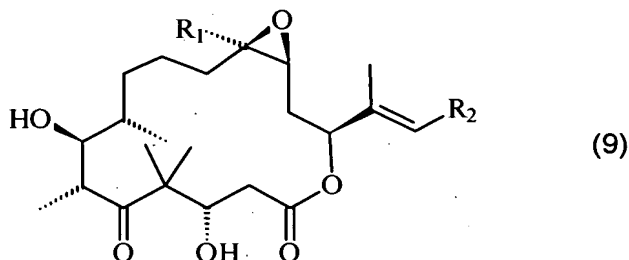


Amendments to the Claims

Listing of Claims:

Claim 35 (new): A process for the preparation of epothilone derivatives of formula 9:

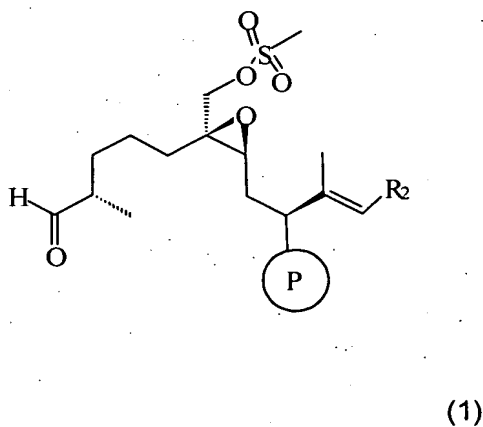


wherein

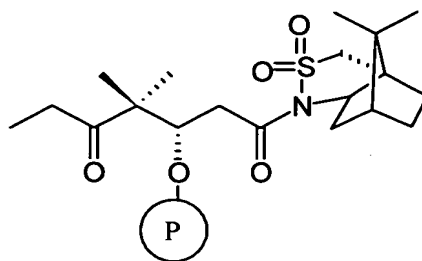
R1 is methyl;

R2 is an unsubstituted or substituted aryl; an unsubstituted or substituted heteroaryl; or an unsubstituted or substituted heterocyclic radical fused to a benzene nucleus;
 comprising the steps of:

a) reacting a compound of formula 1:

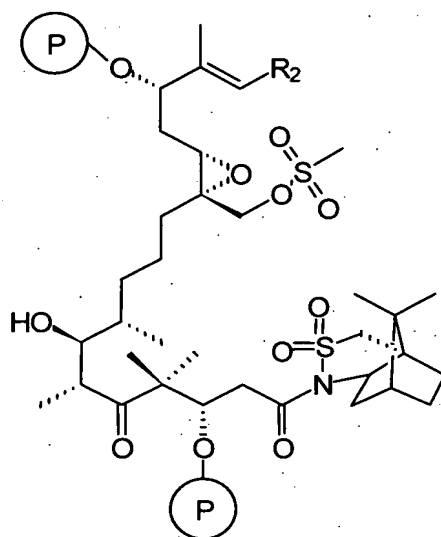


wherein R2 has the meanings given above; and $\textcircled{\text{P}}$ is an alcohol protecting group;
 with a compound of formula 2:




(2)

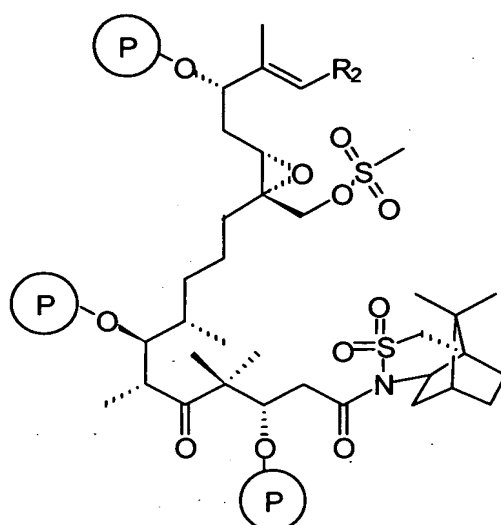
in the presence of a Lewis acid and addition of a base in an inert solvent to yield a compound of formula 3:




(3)

wherein R₂ and  have the above given meanings;

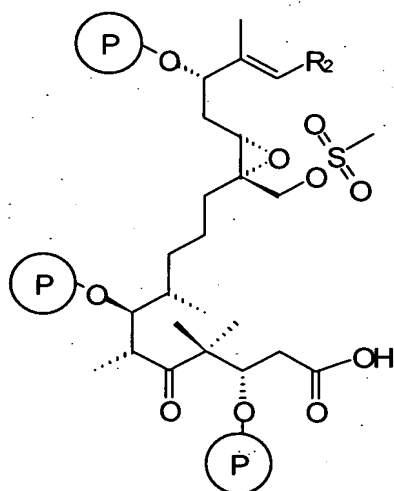
b) the reacting compound of formula 3 in the presence of a silyl-ether forming compound to produce the compound of formula 4:




(4)

wherein R₂ and  have the meanings given above;

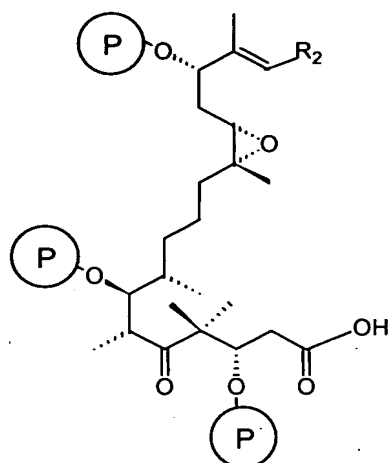
c) converting the compound of formula 4 to produce a compound of formula 5:



(5)

wherein R₂ and  have the meanings given above;

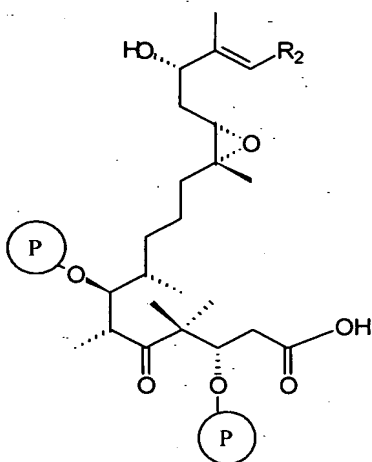
d) reacting compounds of above formula 5 with a reducing reagent in an inert solvent to yield a compound of formula 6:



(6)

wherein R₂ and the $\textcircled{\text{P}}$ above have given meanings;

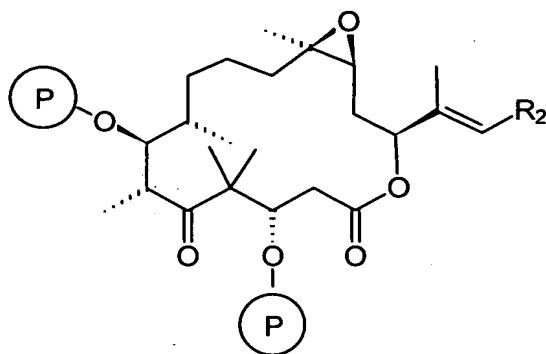
e) hydrolysing the compound of formula 6, to produce a compound of formula 7:



(7)

wherein R₂ and $\textcircled{\text{P}}$ have the above given meanings;

f) macrolactonizing a compound of formula 7, to produce the epothilone derivative of formula 8:



(8)

wherein R₂ and  have the above defined meanings; and

g) treating the compound of formula 8 with HF-pyridine in an inert solvent to produce the epothilone derivatives of formula 9.

Claim 36 (new): The process according to claim 35, wherein in step a) the compound of formula 1 is reacted with the compound of formula 2 in the presence of TiCl₄ and Hünig base (iPr₂Net) in dichloromethane.

Claim 37 (new): The process according to claim 35, wherein in step b) the compound of formula 3 is reacted with a silyl-ether forming compound in the presence of 2,6-lutidine in dichloromethane.

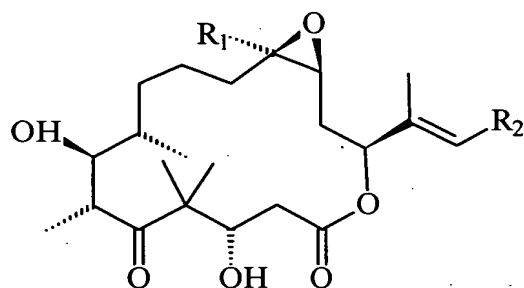
Claim 38 (new): The process according to claim 35, wherein in step c) the compound of formula 4 is converted by splitting off the chiral auxiliary group with TBAOH/H₂O₂ in DME or LiOH in THF/MeOH/H₂O.

Claim 39 (new): The process according to claim 35, wherein in step d) the compound of formula 5 is reacted with LiBHET₃ in THF.

Claim 40 (new): The process according to claim 35, wherein in step e) the compound of formula 6 is hydrolysed with TASF or HF-pyridine in an inert solvent.

Claim 41 (new): The process according to claim 35, wherein in step f) the compound of formula 7 is macrolactonized by treating with Et₃N and 2,4,6-trichlorobenzoyl chloride and subsequently reacted with a solution of 4-DMAP in toluene.

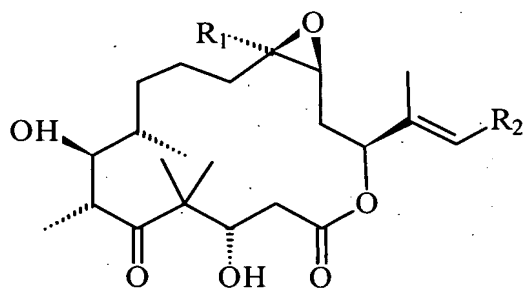
Claim 42 (new): A compound of formula 9:



(9)

wherein R₁ is methyl and R₂ is an unsubstituted or substituted aryl and salts with metal cations.

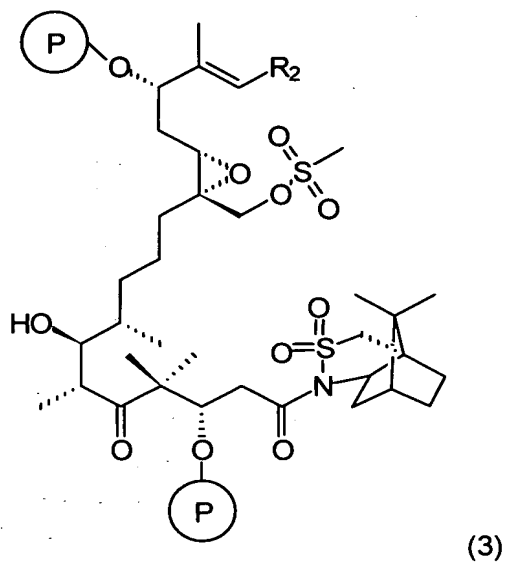
Claim 43 (new): A compound of formula 9:



(9)

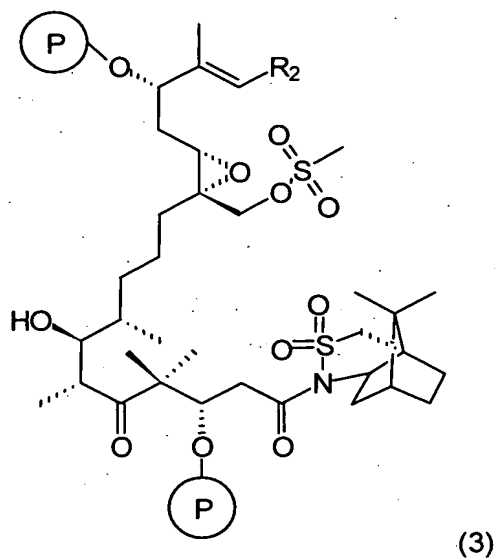
wherein R₁ is methyl and R₂ is an unsubstituted or substituted phenyl and salts with metal cations.

Claim 44 (new): A compound of formula 3:

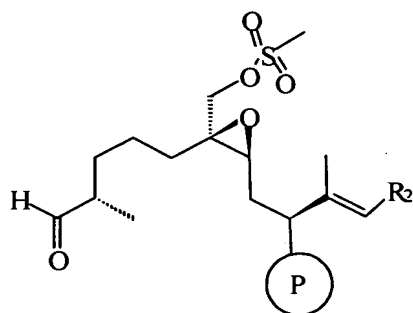


wherein R₂ is an unsubstituted or substituted phenyl and $\textcircled{\text{P}}$ is an alcohol protecting group.

Claim 45 (new): The process for making a compound of formula 3:

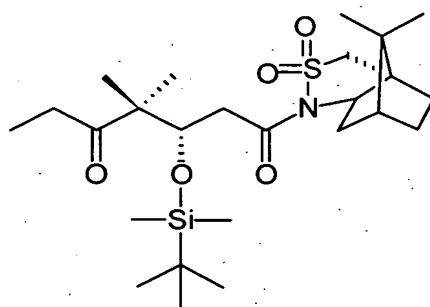


wherein R₂ is an unsubstituted or substituted phenyl, and $\textcircled{\text{P}}$ is an alcohol protecting group comprising the steps of a) reacting a compound of formula 1:



(1)

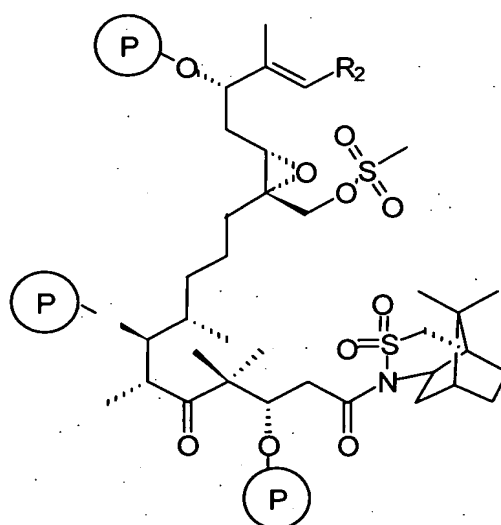
wherein R₂ and $\textcircled{\text{P}}$ have the above given meanings;
with a compound of formula 2:



(2)

in the presence of a Lewis acid and addition of a base in an inert solvent.

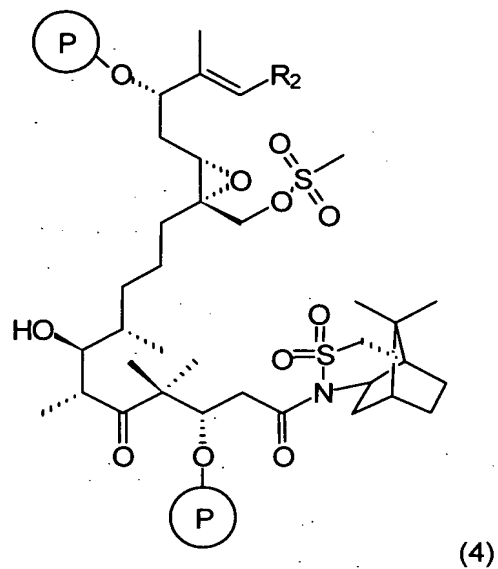
Claim 46 (new): A compound of formula 4:



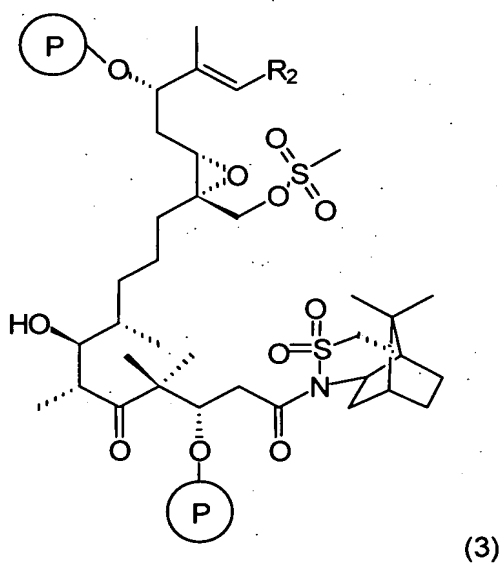
(4)

wherein R₂ is an unsubstituted or substituted aryl; an unsubstituted or substituted heteroaryl;
 or an unsubstituted or substituted heterocyclic radical fused to a benzene ring and $\textcircled{\text{P}}$ is
 an alcohol protecting group.

Claim 47 (new): Process for making a compound of formula 4:



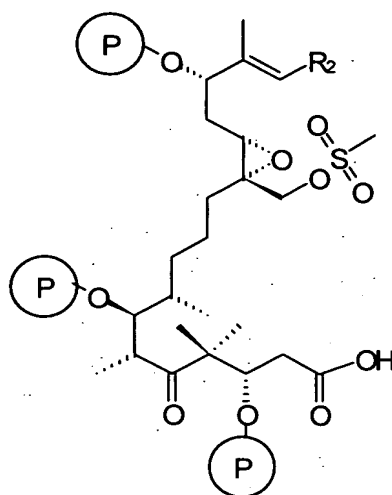
comprising the step of reacting a compound of formula 3:



wherein R₂ is an unsubstituted or substituted aryl; an unsubstituted or substituted heteroaryl; or an unsubstituted or substituted heterocyclic radical fused to a benzene ring

and $\textcircled{\text{P}}$ is an alcohol protecting group with a silyl-ether forming compound.

Claim 48 (new): A compound of formula 5:

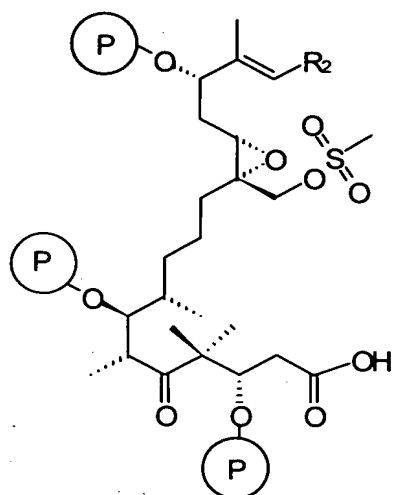


(5)

wherein R₂ is an unsubstituted or substituted aryl; an unsubstituted or substituted heteroaryl;

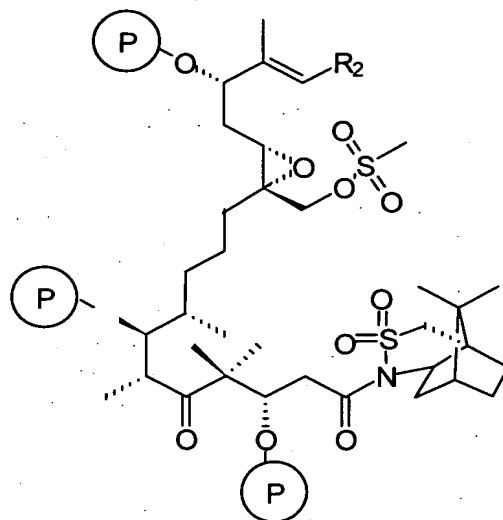
or an unsubstituted or substituted heterocyclic radical fused to a benzene ring and $\textcircled{\text{P}}$ is an alcohol protecting group.

Claim 49 (new): A process for making a compound of formula 5:



(5)

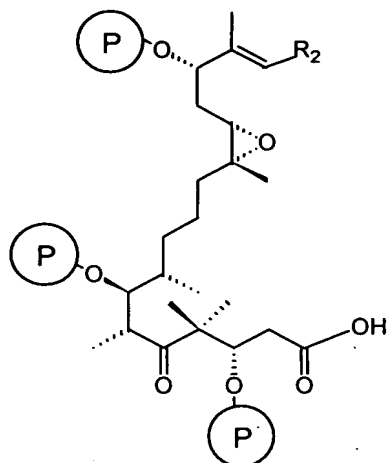
comprising the step of reacting a compound of formula 4:



(4)

with TBAOH/H₂O₂ in DME or LiO₂H in THFMeOH//H₂O.

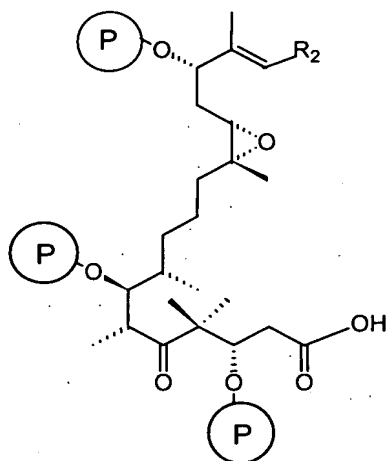
Claim 50 (new): A compound of formula 6:



(6)

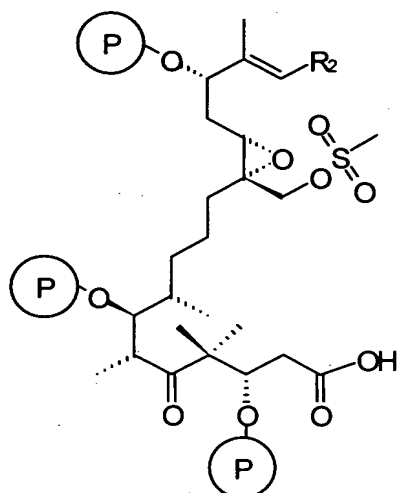
wherein R₂ is an unsubstituted or substituted aryl; an unsubstituted or substituted heteroaryl;
or an unsubstituted or substituted heterocyclic radical fused to a benzene ring and $\textcircled{\text{P}}$ is
an alcohol protecting group..

Claim 51 (new): A process for making a compound of formula 6:



(6)

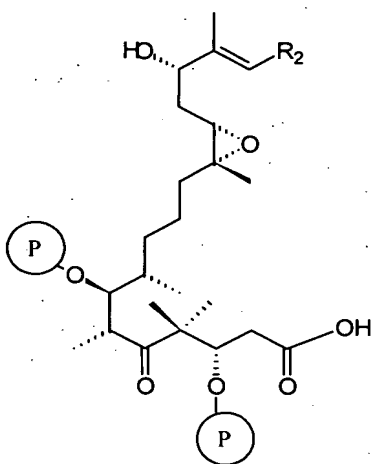
comprising the step of reacting a compound of formula 5:



(5)

with a reducing reagent in an inert solvent.

Claim 52 (new): A compound of formula 7:

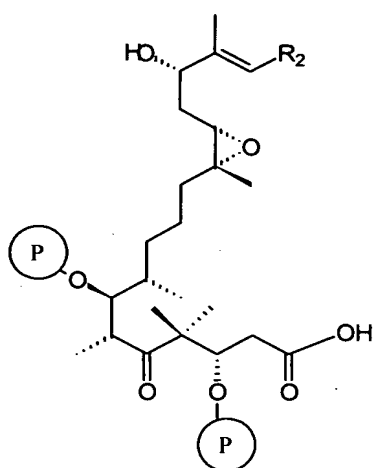


(7)

wherein R₂ is an unsubstituted or substituted aryl; an unsubstituted or substituted heteroaryl or an unsubstituted or substituted heterocyclic radical fused to a benzene ring and

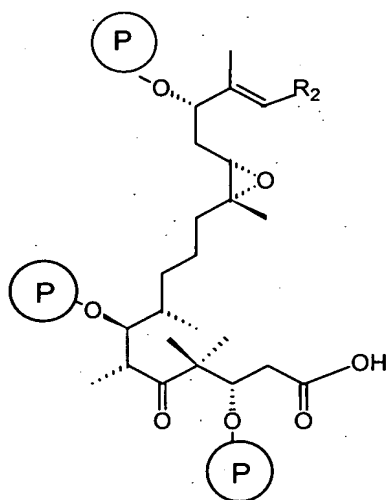
(P) is an alcohol protecting group.

Claim 53 (new): A process for the preparation of a compound of formula 7:



(7)

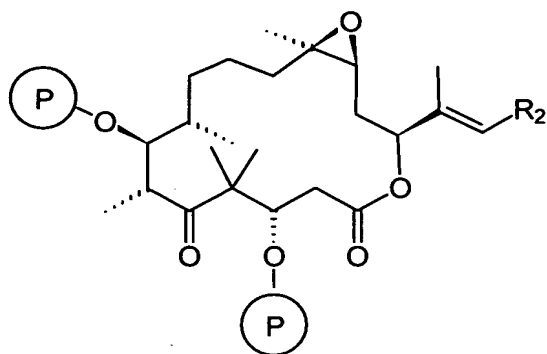
comprising the step of hydrolysing the compound of formula 6:



(6)


with a desilylation reagent, in an inert solvent.

Claim 54 (new): A compound of formula 8:

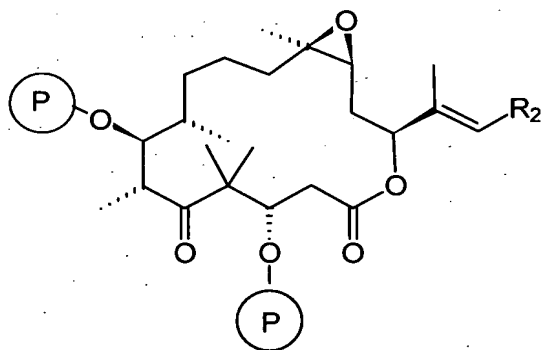


(8)

wherein R₂ is an unsubstituted or substituted aryl; an unsubstituted or substituted heteroaryl;

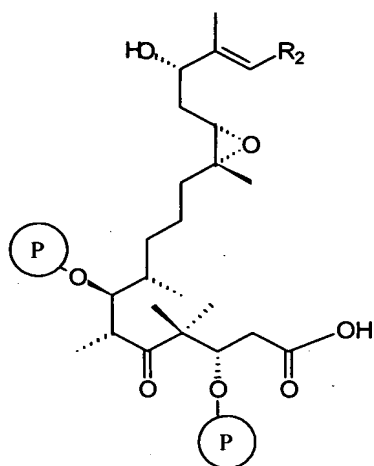
or an unsubstituted or substituted heterocyclic radical fused to a benzene ring and  is an alcohol protecting group.

Claim 55 (new): A process for making a compound of formula 8:



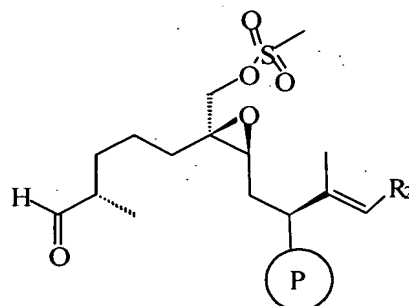
(8)

comprising the step of macrolactonizing a compound of formula 7:



(7)

Claim 56 (new): A compound of formula 1:



(1)

wherein R₂ is an unsubstituted or substituted aryl; an unsubstituted or substituted heteroaryl; or an unsubstituted or substituted heterocyclic radical fused to a benzene nucleus; and

Ⓟ is an alcohol protecting group.

Claim 57 (original): A process for making a compound of formula 1:



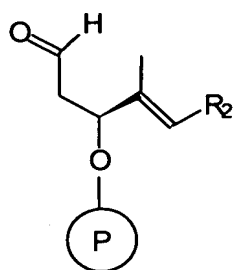
a) reacting a compound of formula 10:



(P) is an alcohol protecting group with PPH₃ and subsequently with KHMDS in an inert solvent, and treating with CH₃CO₂Cl to obtain a compound of formula 11:

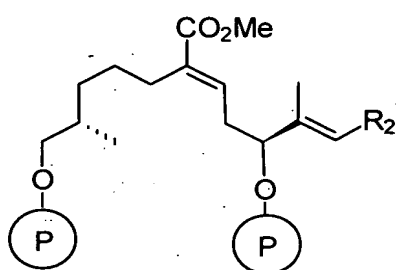


b) reacting the compound of formula 11 with a compound of formula 12



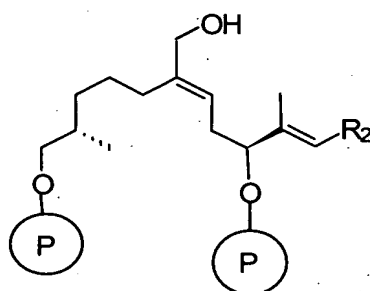
(12)

in an inert solvent, to obtain a compound of formula 13:



(13) ;

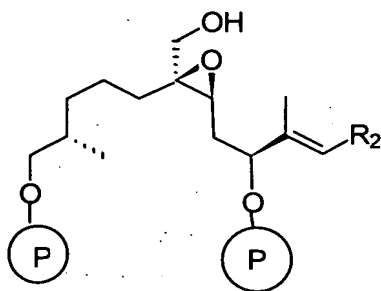
c) reducing a compound of formula (13) to obtain a compound of formula 14



(14)

wherein R₂ and $\textcircled{\text{P}}$ have the above meanings;

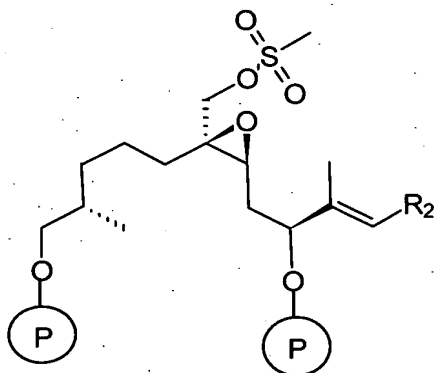
d) epoxidating the compound of formula XIV to obtain a compound of formula 15:



(15) ;

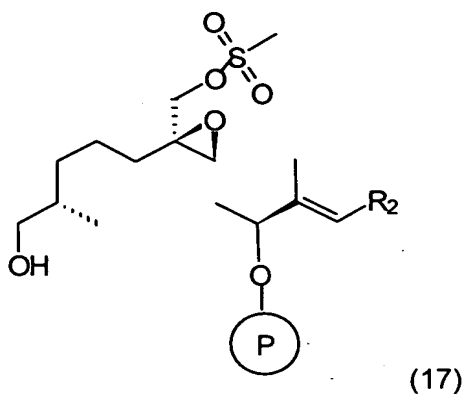
wherein R₂ and $\textcircled{\text{P}}$ have the above meanings;

e) reacting the compound of formula 15 with mesylate chloride in the presence of triethylamine (Et₃N) in an inert solvent, to produce a compound of formula 16



(16) ;

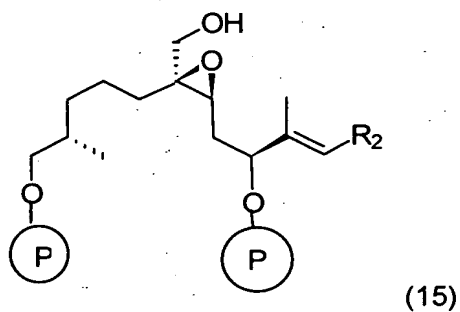
f) treating the compound of formula 16 with an organic acid in an inert solvent, to obtain a compound of formula 17



wherein R₂ and $\textcircled{\text{P}}$ have the above given meanings; and

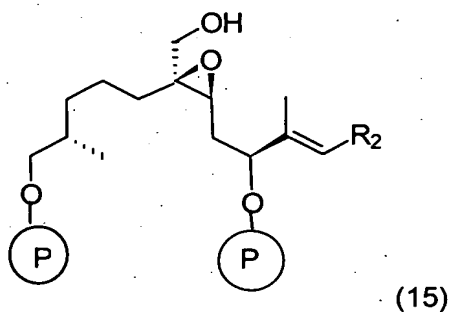
g) oxidizing the compound of formula 17 to produce the compound of formula 1.

Claim 58 (new): A compound of formula 15:

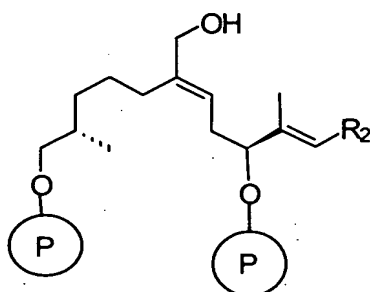


wherein R₂ is an unsubstituted or substituted aryl; an unsubstituted or substituted heteroaryl; or an unsubstituted or substituted heterocyclic radical fused to a benzene ring; a $\textcircled{\text{P}}$ is an alcohol protecting group.

Claim 59 (new): A process for making a compound of formula 15:



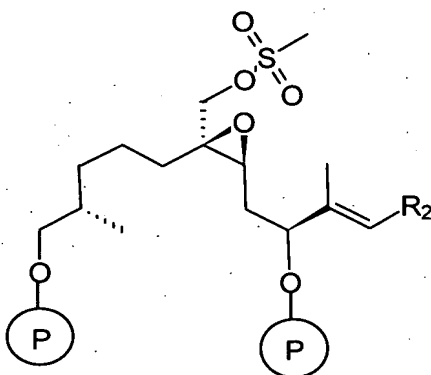
comprising the steps of epoxidating the compound of formula 14:



(14)

to produce a compound of formula 15.

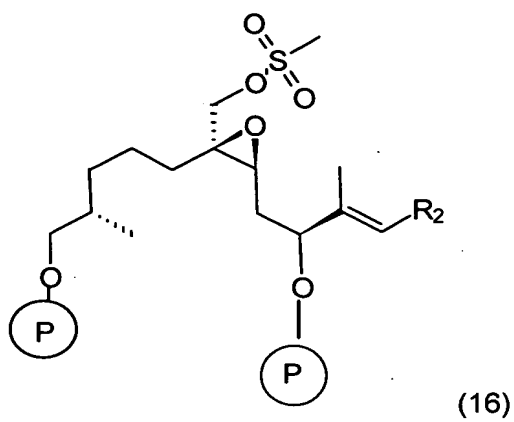
Claim 60 (new): A compound of formula 16:



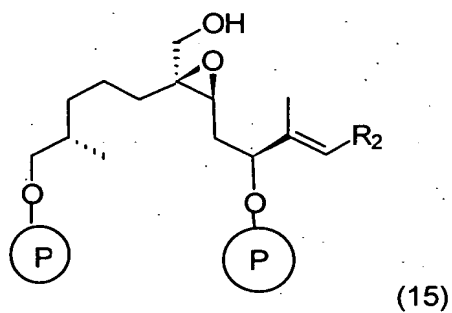
(16)

wherein R₂ is an unsubstituted or substituted aryl; an unsubstituted or substituted heteroaryl; or an unsubstituted or substituted heterocyclic radical fused to a benzene ring; a P is an alcohol protecting group.

Claim 61 (new): A process for making a compound of formula 16:

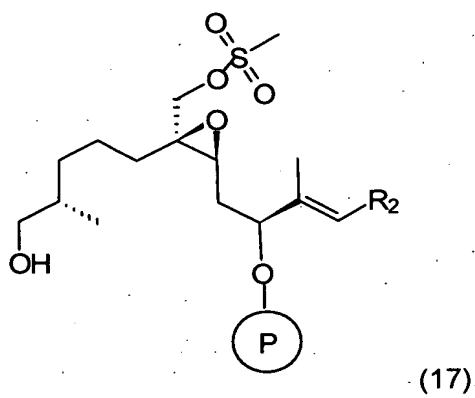


comprising the step of reacting a compound of formula 15:



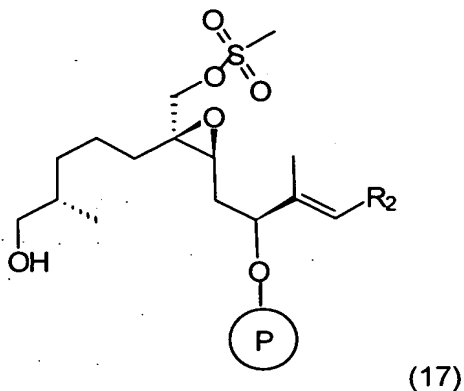
with mesylate chloride in the presence of triethylamine in an inert solvent to obtain a compound of formula 16.

Claim 62 (new): A compound of formula 17:



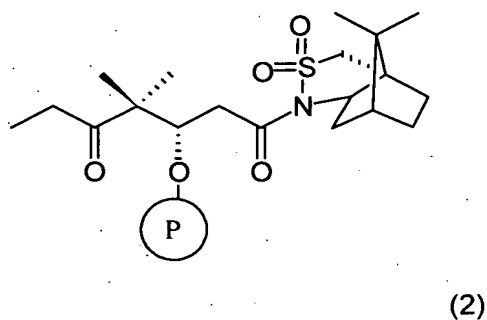
wherein R₂ is an unsubstituted or substituted aryl; an unsubstituted or substituted heteroaryl; or an unsubstituted or substituted heterocyclic radical fused to a benzene ring; a $\textcircled{\text{P}}$ is an alcohol protecting group.

Claim 63 (new): A process for making a compound of formula 17:



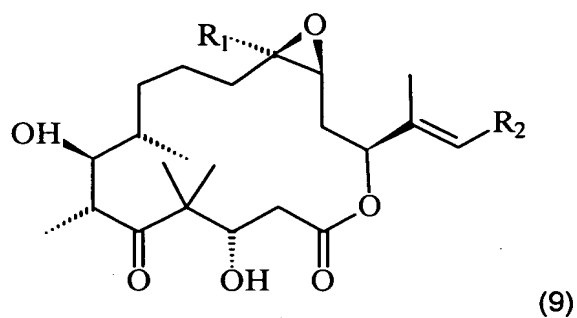
comprising the step of treating a compound of formula 16 with an organic acid in an inert solvent, and hydrolyzing the protecting group to obtain a $\textcircled{\text{P}}$ compound of formula 17.

Claim 64 (new): A compound of formula 2:



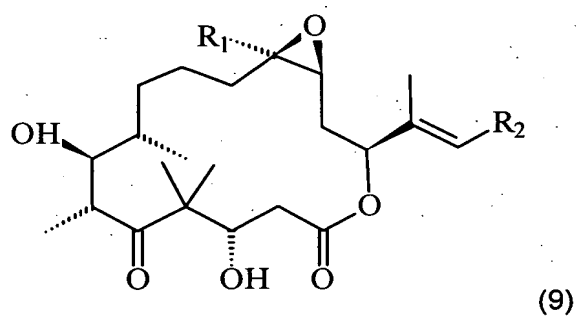
wherein $\textcircled{\text{P}}$ is an alcohol protecting group.

Claim 65 (new): A method of treating a warm-blooded animal suffering from a proliferative disease, comprising administering a compound of the formula 9:



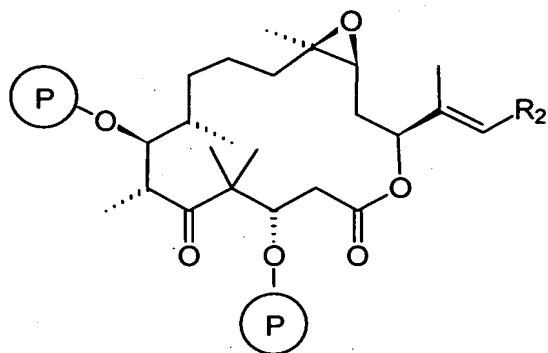
wherein R₂ is an unsubstituted or substituted aryl radical or a pharmaceutically acceptable salt thereof, to said warm-blooded animal in an amount that is sufficient for said treatment.

Claim 66 (new): A pharmaceutical composition, comprising an effective amount of a compound of formula 9



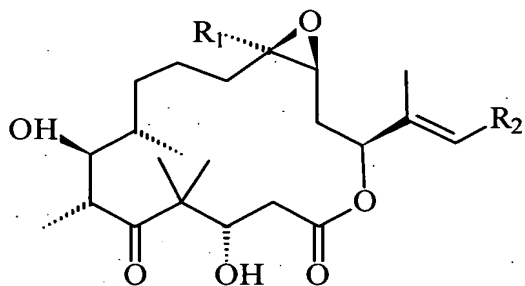
wherein R₂ is an unsubstituted or substituted aryl radical which is effective for the treatment of said cancer disease, together with at least one pharmaceutically acceptable carrier.

Claim 67 (new): Use of a compound of formula 8



(8)

for preparing a compound of formula 9



(9)

for medical treatment.

Claim 68 (new): The process according to claim 35 further comprising converting the compound of formula 9 to a salt.